



Draft Regulations for AB 1103

High Performance Buildings &
Standards Development Office

September 12, 2011



Workshop Agenda

- Introduction
- Benefits of Benchmarking
- Draft Regulations
- Disclosure Process Demonstration
- Best Practice Recommendations
- Energy Use Disclosure Guidance
- Discussion

• Monitor changes. Scoring

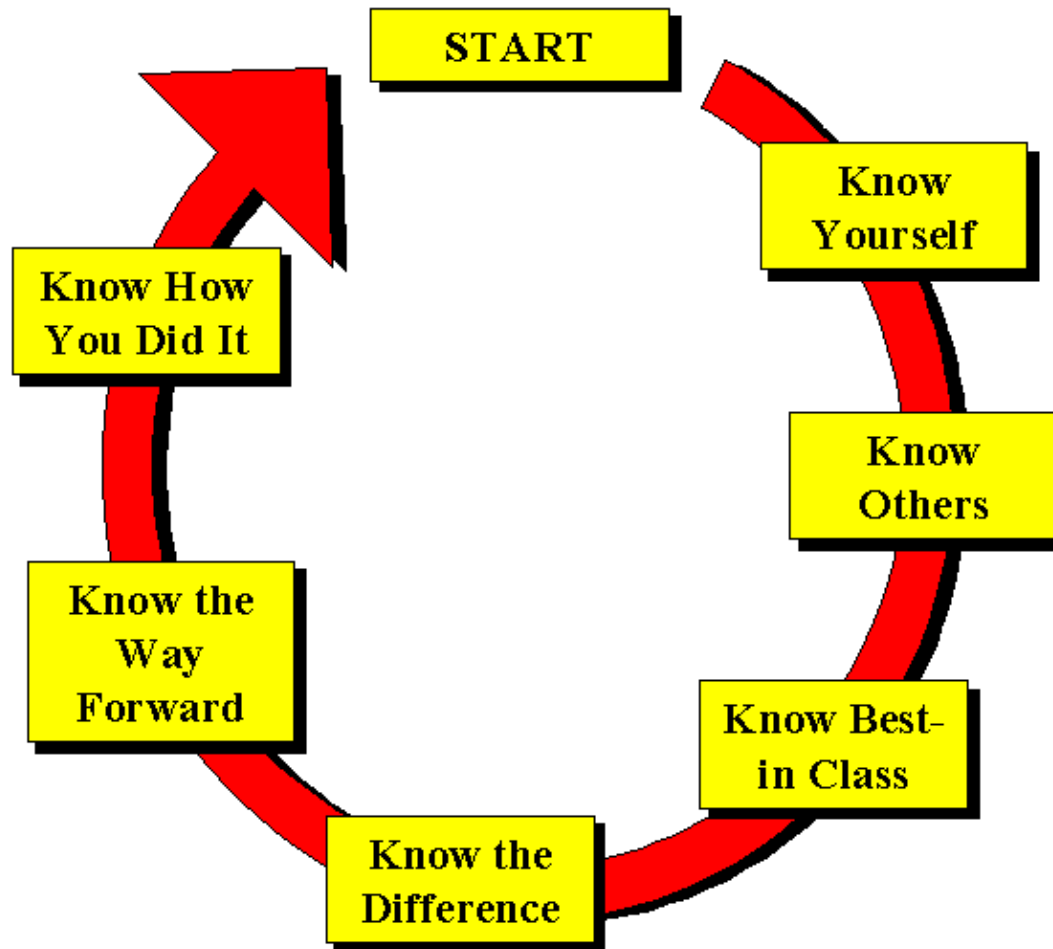
• Demonstrate proactive management of energy issues. Having a building's energy consumption data summarized and documented helps answer questions

• Receive positive publicity. Being able to document a building's improved energy efficiency or reduced energy consumption provides a basis to communicate

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Benefits of Energy Use Benchmarking





Benefits of Benchmarking for the Building Owner

- Prioritize investments in a building portfolio – identify the best candidates for upgrades
- Determine potential savings - by comparing a benchmarking score to a "target score," benchmarking can suggest the energy savings potential of raising efficiency to this target
- Monitor changes - scoring a building over a period of time can help evaluate the effectiveness of changes in equipment or management
- Demonstrate proactive management of energy issues



Benefits of Benchmarking for the Purchaser or Lessee

- Less energy efficient buildings are likely to be less competitive in the marketplace
- With the growth in popularity of "green buildings," buildings with relatively poor energy performance will likely be viewed as less valuable
- Buildings with relatively poor energy performance may experience a reduced prospective tenant pool as tenants under their net leases grow more concerned about escalating energy costs



California Energy Commission REVISED DRAFT REGULATIONS

Nonresidential Building Energy Use Disclosure Program

Draft Regulations

Title 20, Division 2, Chapter 4, Article 9, Sections 1680 - 1685



Best Practice Recommendations

- ASTM Building Energy Performance Assessment (BEPA) General Building Survey Checklist
- CA Rating



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ASTM Building Energy Performance Assessment (BEPA)

General Building Survey Checklist

- Provides additional information on building characteristics that influence energy usage
- May help explain why an ESPM rating is high or low
- Opportunity to document the efficiency measures taken to improve building performance



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X7. GENERAL BUILDING SURVEY CHECKLIST

X7.1 This checklist (Table X7.1) is designed to facilitate the information collection by the prospective property purchaser (*user*) or *Consultant* from the property *owner* or *operator*, or *key site manager*, or other knowledgeable party to conduct the *BEPA*. The following information should be completed to the best of the responder's knowledge, attaching supporting documentation where available. All previous green building labeling, ratings, certifications, and energy audit documentation should also be attached.

	Date of Survey: _____	Owner Disclosure (Yes, No, Unk)	Observed on Site Visit (Yes, No, Unk)	Notes
1	General Survey Information			
	Building Name			
	Building Address			
	Building City, State, Zip Code			
	Number of Buildings on Site (and Specific Identification of the Building being Surveyed)			
	Site Acreage			
	General Property Use			
	General Building Description			
	Property Type and Category (see Appendix X5)			
	Geographical Setting/Climate Zone			
	Access Limitations During Survey			
2	Owner, Operator, Key Site Manager Information			
	Building Owner Contact Name			
	Building Owner Contact Title			
	Building Owner Contact Phone Number			
	Building Owner Contact Email Address			
	Building Operator Contact Name			
	Building Operator Contact Title			
	Building Operator Contact Phone Number			
	Building Operator Contact Email Address			
	Building Key Site Manager Contact Name			
	Building Key Site Manager Contact Title			
	Building Key Site Manager Contact Phone Number			
	Building Key Site Manager Contact Email Address			
3	Historical Documentation			
	Architectural/As Built Plans			Title & Date of Document(s)
	Historical Monthly Occupancy Records (3 years)			Title & Date of Document(s)
	Historical Monthly Hours of Operation Records (3 years)			Title & Date of Document(s)
	Historical Monthly Utility/Energy use Records (3 years)			Title & Date of Document(s)
	Historical Monthly Utility/Energy Cost Records (3 years)			Title & Date of Document(s)
	Previous Energy Audit Records			Title & Date of Document(s)
	Energy Management Operating Plan			Title & Date of Document(s)
	Energy Efficient Equipment Purchasing Plan			Title & Date of Document(s)



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		Owner Disclosure (Yes, No, Unk)	Observed on Site Visit (Yes, No, Unk)	Notes
3	Historical Documentation (cont.)			
	Previous Green Building Labeling, Rating & Certification Records			
	ASHRAE Building EQ			Title & Date of Document(s)
	CMP Green Value Score			Title & Date of Document(s)
	EPA ENERGY STAR Rating			Title & Date of Document(s)
	EPA Energy Star Building Label			Title & Date of Document(s)
	Green Globes Rating			Title & Date of Document(s)
	USGBC LEED Certification - NC			Title & Date of Document(s)
	USGBC LEED Certification - CS			Title & Date of Document(s)
	USGBC LEED Certification - CI			Title & Date of Document(s)
	USGBC LEED Certification - EB			Title & Date of Document(s)
	USGBC LEED Certification - Retail			Title & Date of Document(s)
	USGBC LEED Certification - Other			Title & Date of Document(s)
	Other			
4	General Building(s) Information			
	Building Type (for example, Class A Office)			
	Year Built			
	Completion Date of Last Major Renovation			
	Building Structural Description (for example, subgrade levels)			
	Number of Floors			
	Gross Floor Area in Square Feet			
	Percent of Floor Area Cooled			
	Percent of Floor Area Heated			
	Heating Source(s)			
	Roof Description			
	Green Roof – Vegetation or Light Reflective Material			
	Weekly Operating Hours			
	Parking Space Information			
	Open Parking Area – GSF not under roof			
	Non-Enclosed Area – GSF under roof but not enclosed			
	Enclosed/Garage Area – GSF under roof			
	Garage Floors Above Ground			
	Garage Floors Below Ground			
	Weekly Hours of Parking Area Access			
	Description of Tenants			

[illegible]

		Owner Disclosure (Yes, No, Unk)	Observed on Site Visit (Yes, No, Unk)	Notes
8	Building HVAC Information			
	Type of HVAC Equipment (Energy Star Rated?)			
	Location of HVAC Equipment			
	Size/Capacity for Each Component			
	GSF of Area Covered per Component			
	Energy Management System (EMS)			
	Electrical or Fuel Use Specifications			
	Weekly Hours of Operation (note peak and off-peak times)			
	Thermostat /Timer Description			
	Supplemental Heating or Cooling Sources?			
	Space Heaters			
	Individual Fans			
	Individual Window AC Units			
9	Building Hot Water Production Information			
	Type of Hot Water Equipment (Energy Star Rated?)			
	Location of Hot Water Equipment			
	Size/Capacity for Each Component			
	Electrical or Fuel Use Specifications			
10	Building Boiler and Steam Distribution Information			
	Type of System			
	Equipment Utilized			
	Size/Capacity for Each Component			
	Electrical or Fuel Use Specifications			
11	Building Electrical Motors Information (for example, Pumps, Elevators)			
	Location and Use of Equipment			
	Motor Size			
	Electrical or Fuel Use Specifications			
	Weekly Hours of Operation (note peak and off-peak times)			



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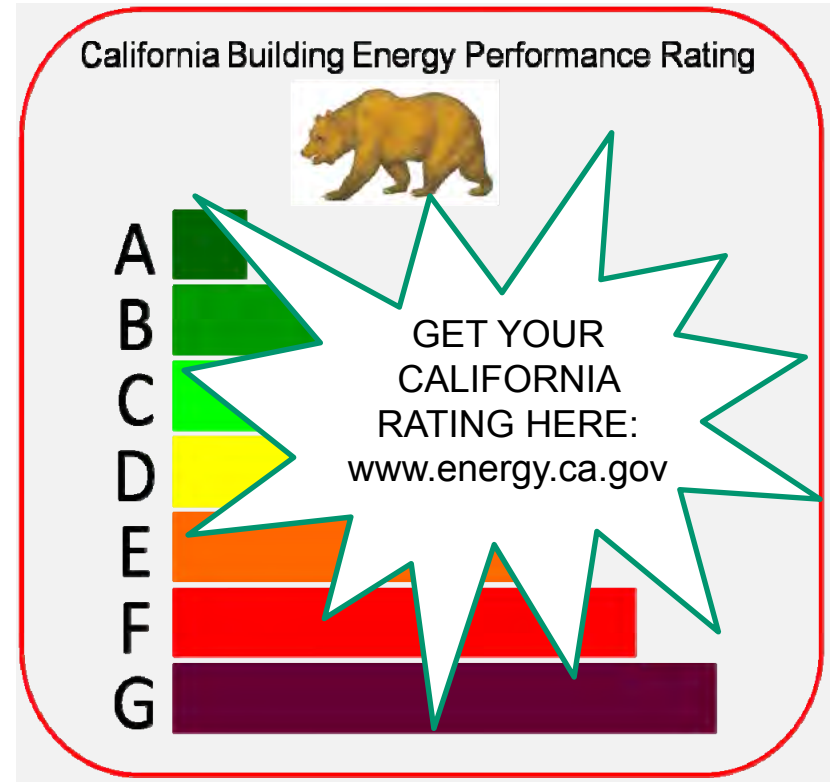
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		Owner Disclosure (Yes, No, Unk)	Observed on Site Visit (Yes, No, Unk)	Notes
12	Building Occupant Personal Computers			
	Number of Occupants			
	Estimated Number of Computers			
	Hours of Operation (note peak and off-peak times)			
13	Building Computer Data Center/Server Rooms			
	Type of Computer Data Center(s)			
	Location of Computer Data Center(s)			
	GSF of Computer Data Center(s)			
	Percent of Total Building GSF the Data Center(s) Occupies			
	Weekly Hours of Operation of the Computer Data Center(s) (note peak and off-peak times)			
14	Building Specialty Equipment (for example, Commercial Refrigeration Units, Lab Equipment, and so forth)			
	Location and Type of Specialty Equipment Space			
	GSF of Specialty Equipment Space			
	Percent of Total Building GSF the Specialty Equipment Space(s) Occupies			
	Weekly Hours of Operation of the Specialty Equipment Space(s) (note peak and off-peak times)			
15	Building Industrial/Manufacturing Equipment			
	Location and Type of Industrial/Manufacturing Equipment Space			
	GSF of Industrial/Manufacturing Equipment Space			
	Percent of Total Building GSF the Industrial/Manufacturing Equipment Space(s) Occupies			
	Weekly Hours of Operation of the Industrial/Manufacturing Equipment Space(s) (note peak and off-peak times)			
16	Building Environmental Stewardship Information			
	Refrigerant Management Plan			Title & Date of Document(s)
	Greenhouse Gas Emissions Reporting Plan			Title & Date of Document(s)
	Use of Low VOC materials			Title & Date of Document(s)
	Sustainable Purchasing Policy/Plan			Title & Date of Document(s)
	Solid Waste Management Plan (Recycling)			Title & Date of Document(s)
17	Building Water Efficiency Information			
	Water Efficiency Plan			Title & Date of Document(s)



Benefits of a CA Rating System

- ✓ Allows all CA buildings to get rated
- ✓ Compares CA buildings to each other
- ✓ Complements the Energy Star rating
- ✓ Sets a foundation for future energy performance rating & labeling initiatives in CA
- ✓ Can display the CA energy policy goal of Zero Net Energy

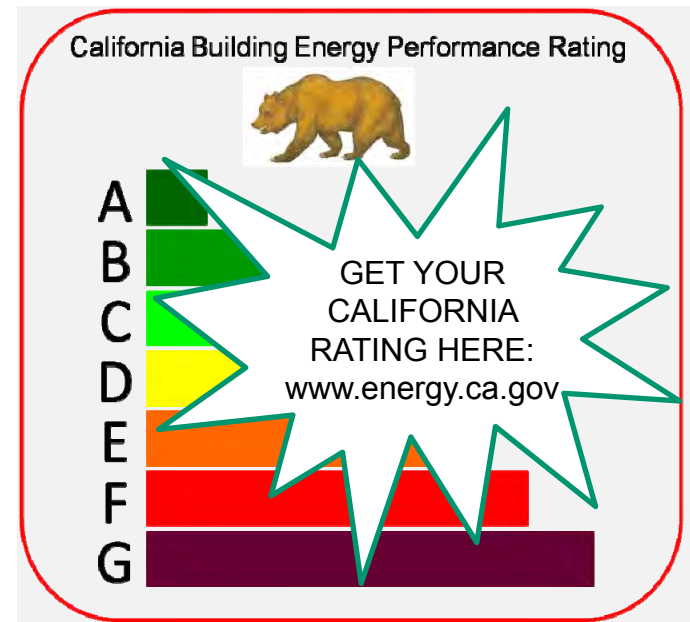




Why does the CEC recommend a California Rating for AB 1103?

Energy Star Portfolio Manager does not provide a 1-100 rating for all CA commercial buildings. Buildings not ratable are:

- less than 5,000 sf
- bldg types or space uses not covered by EPA's Portfolio Manager





Why does the CEC recommend a California Rating for AB 1103?

Characteristic of California Buildings in CEUS 2003 Database	CEUS Total	Buildings that cannot get an Energy Star rating		
		< 5,000 sq ft (1,000 sq ft for banks) # %	Remainder with no rating tool # %	TOTAL # %
Number of buildings	525,736	358,166 68%	82,059 16%	440,225 84%
Number of building types (space types)	62	N / A	32 52%	32 52%
Floor area (million sf)	4,539	706 16%	1,462 32%	2,167 48%
Energy use (billion Btu)	329,659	74,355 23%	108,887 33%	183,242 56%



Energy Use Disclosure Guidance

(share Guideline Table of Contents)





Workshop Discussion

